

his closing years. Whatever the state of his health, he came plodding up the stairway and sat down to his work. There was always a smile, a joke, some trenchant humour. He went away cheered. He felt he was doing something. He was no dilettante of science. He was a man of action. He wanted to serve, to use his knowledge. He felt that it was being wasted. It was indeed wasted by the State who might well have continued to use his great knowledge to the greater good of this country and its people. His untimely retirement from his post as Director of the Pharmacological Laboratory of the Haffkine Institute was to him a grievous disappointment. It was a premature cutting off from a field of endeavour in which he had accomplished much and in which he knew he could accomplish more. As a realist, applied science attracted him more than the realms of pure research. His chosen field was science applied to the alleviation of human suffering. In the Haffkine Institute he carried out intensive investigations into the therapeutic value of various remedies employed to combat diseases caused by hookworms and round worms—diseases so prevalent in India. The results of his researches were published in the Indian Journal of Medical Research. His work has been accepted as the most exhaustive and complete treatise on the subject. It is repeatedly quoted by most text books on pharmacology. Another contribution by Father Caius was his extensive studies of the poison apparatus of snakes and of the remedies employed against snake poisons. Quite early he collaborated with Dr. Marie Phisalix, the distinguished savant and herpetologist of the Paris Museum. Their combined researches into the structure and function of the poison apparatus of snakes, particularly of species generally believed to be non-poisonous, were published in the Journal of Physiology and Pathology of Paris. Here in India Caius turned his attention to the investigation of the value of various remedies supposed to be effective against snake bite. He searched Ayurvedic and Unani systems of medicine to find out if any effective cures could be found. It was long and laborious research. He found none that were effective, but he and his collaborators rendered a great public service by showing that these so-called and widely employed remedies were completely without action against Cobra or Viper venoms. He also made valuable contributions to our knowledge of methods of concentration of antivenine, and he was one of the pioneers in undertaking investigations into the chemo-therapy of plague. He was one of the leading authorities on the Medicinal and Poisonous Plants of India. Students of indigenous drugs will ever be indebted to Father Caius for his revision of Kirtikar and Basu's work on Indian Medicinal Plants. This book published in 4 volumes is now the standard work on the subject. It classifies the various drugs used in indigenous systems of medicine and provides a wealth of information of their action and uses. As with all his writings, they are marked with an objectivity, a clarity of thought and conciseness which have earned the admiration of scientists and laymen. He also contributed a series of articles on the Medicinal and Poisonous Plants of India to the Journal of the Bombay Natural History Society and to the *New Review* of Calcutta. Another subject which interested him was the question of 'Earth-eating and Salt-licks'. His analysis of 'Salt-licks' sent from various parts of India were published in the Society's Journal. This was the measure of his services to the country as a scientist. But what of Caius the man? None of us who knew him intimately will forget him. To some he might have seemed elusive and forbidding; but under that somewhat stern exterior there beat a great heart, a heart full of charity and kindness to the poor and suffering, full of compassion for the lowly. To the least of these he was a father and friend. He died as he lived, working for his fellowmen. It is the best epitaph that could be written of a man. May God rest his soul.

S. H. P.

SIR ERNEST HOTSON, K.C.S.I., O.B.E.

In the death of Sir Ernest Hotson on May 12th 1944, the Society loses one who has been for many years one of its strongest supporters. John Ernest Buttery Hotson was born on March 17th 1877. He was educated at Edinburgh Academy and at Magdalen College, Oxford.

He was in the Indian Civil Service from 1899 but when the last War broke out he joined the Indian Army Reserve of Officers and was on military duty chiefly in Baluchistan from 1915 to 1918, was Lt.-Colonel in command of the Mekran Levy Corps and subsequently was appointed Consul at Shiraz, Persia.

Sir Ernest was a keen naturalist and when he was in Baluchistan and also in Persia, he collected specimens for the Mammal Survey of India which was started by the Bombay Natural History Society.

In the Journal of the Society, Vol. xxvi, the late Mr. Oldfield Thomas published an article on 'Some new Mammals from Baluchistan and North-West India' and named two new species after Col. Hotson:—Hotson's Jerboa (*Allactaga hotsoni*) and a new Vesper Mouse (*Calomyscus hotsoni*).

This was followed by an article in Vol. xxvii. by Major R. E. Cheesman on a Collection of Mammals made by Col. J. E. B. Hotson in Shiraz, Persia, and two of the Bats were found to be new to science.

Another small collection of mammals was acknowledged from Colonel Hotson in the same Volume. These were part of a collection which was looted on the way down from Shiraz and were discovered lying at the bottom of a well, the remainder, comprising chiefly botanical specimens, were unfortunately destroyed.

Mr. R. I. Pocock of the British Museum (Natural History) has kindly supplied the following notes in regard to specimens collected by Col. Hotson which have passed through his hands:—

1. Adult female and half-grown kitten of *Felis lybica nesteron*, a race of the Desert Cat (*ornata*), new to the British Museum Collection, from Persepolis (Mamm. Brit. India, Vol. I, p. 288).
2. An interesting specimen of the typical race of the Jungle Cat (*Felis chaus chaus*) from 9 miles South of Shiraz (op. cit., p. 292).
3. Specimens of the western race of the Common Mongoose (*Herpestes edwardsii ferrugineus*) from Qasrquand on the Perso-Baluchi border and from Shiraz (Vol. II, p. 17).
4. Specimens of the small race of the Indian Wolf (*Canis lupus pallipes*) from Kajdar, S. Baluchistan (Vol. II, p. 91).
5. Several specimens of the western race of the jackal (*Canis aureus aureus*) from Shiraz and several localities in Baluchistan (Vol. II, p. 97).
6. White-footed Fox (*Vulpes vulpes pusilla*), many specimens from various localities in southern Baluchistan, from Chanaban in the Persian Gulf and Shiraz, the specimen from the last locality being a topotype of Blanford's *persica* and helping to show that that name is a synonymy of *pusilla* (Vol. II, p. 12).

The ungulates have not yet been reported upon.

Persian Gazelle (*Gazella subgutturosa*), Shiraz.

Ibex and Oorial from S. Baluchistan. The Oorial being a particularly interesting lot showing seasonal changes etc. and throwing a good deal of light upon the synonymy of this sheep in Western India.

'All his skins were valuable because they had full particulars, localities, altitudes, dates and measurements. I do not believe that Oorial, for example, have ever been properly measured before, sportsmen caring for nothing but the horns and shoulder height.'

These notes by Mr. Pocock demonstrate the exceptional value of Sir Ernest Hotson's collections, given to the National Collection, through the Bombay Natural History Society.

Sir Ernest very generously defrayed half the expenses of the collector, Mr. Baptista, who joined him in Baluchistan and also in Shiraz.

A large collection of botanical specimens made by him in Baluchistan, Afghanistan and Persia, was presented by Sir Ernest to the late Fr. E. Blatter, S.J., and is now in the Herbarium of St. Xavier's College, Bombay.

Returning to Bombay after the War, he again served at headquarters as Secretary in the Political Department from 1922, and then as Chief Secretary. In 1926 he was appointed to the Governor's Executive Council and when Sir Frederick Sykes went home on four months' leave, Sir Ernest acted as Governor of Bombay.

W. S. M.